Claim Amendments

1.   (Withdrawn) A sampling station of an autosampler for preparing samples of a specimen for analysis by an analytical instrument, the sampling module comprising:

a first flow path;

a needle adapted to introduce a sample of the specimen into the first flow path;

a standard injection system adapted to introduce a known quantity of standard

into the first flow path to combine with the sample; and

an exit port in line with the first flow path.

2.   (Withdrawn) The sampling station of claim 1, wherein the internal standards system includes:

a pressurized standard vessel containing a standard;

a second flow path in line with the pressurized standard vessel; and

at least one valve having a first inlet and outlet in line with the first flow path, a

second inlet and outlet in line with the second flow path, and a guide

member having an internal cavity of a known volume that is moveable

between a first position and a second position;

wherein fluid communication is opened between the first inlet and outlet

through the internal cavity and is blocked between the second inlet and

outlet when the guide member is in the first position, and fluid

communication is opened between the second inlet and outlet and is

blocked between the first inlet and outlet when the guide member is in

the second position.

3.   (Withdrawn) The sampling station of claim 2, wherein the internal standards system includes a restrictive tubing section in line with the second flow path for

restricting the fluid communication between the second inlet and outlet when the

guide member is in the second position.

4.   (Withdrawn) The sampling station of claim 2, wherein the internal standards

system includes a check valve in line with the second flow path.

5.   (Withdrawn) The sampling system of claim 1, wherein the standard is selected

from a group consisting of an internal standard, a calibration standard, and a matrix

spike.

6.   (Withdrawn) The sampling station of claim 1, wherein the needle includes:

a bottom stage having at least one aperture and an end;

a middle stage, proximate the bottom stage, having at least one aperture; and

a top stage, proximate the bottom and middle stages, having at least one

aperture, wherein at least one of the bottom, middle, and top stages of

the needle is in fluidic communication with the first flow path.

7.   (Withdrawn) The sampling station of claim 6, wherein the needle further

includes a heated block adapted to heat a portion of at least one of the bottom stage,

the middle stage, and the top stage of the needle.

8.   (Withdrawn) The sampling station of claim 1, including a pump for performing

fluid extractions and distributions.

9.   (Withdrawn) The sampling station of claim 8, wherein the pump includes a first

syringe for large volume fluid extractions and distributions, and a second syringe for

performing small volume fluid extractions and distributions.

10.   (Withdrawn) The sampling station of claim 1, including control electronics adapted to control the internal standards system.

11.   (Withdrawn) The sampling station of claim 2, including control electronics adapted to control at least one of the internal standards system and the valve.

12.   (Withdrawn) The sampling station of claim 8, including control electronics adapted to control at least one of the internal standards system and the pump.

13.   (Withdrawn) An internal standards system for injecting a standard into a first flow path of a sampling station, the system comprising:

   a pressurized standard vessel containing a standard;

   a second flow path in line with the pressurized standard vessel; and

   a valve having a first inlet and outlet in line with the first flow path, a second outlet and outlet in line with the second flow path, and a guide member having an internal cavity of a known volume and moveable between a first position and a second position;

   wherein fluid communication is opened between the first inlet and outlet through the internal cavity and is blocked between the second inlet and outlet when the guide member is in the first position, and fluid communication is opened between the second inlet is blocked between the first inlet and outlet when the guide member is in the second position.

14.   (Withdrawn) The internal standards system of claim 13, including a restrictive tubing section in line with the second flow path for restricting the fluid communication between the second inlet and outlet when the guide member is in the second position.

15.   (Withdrawn) The internal standards system of claim 13, including a check valve in line with the second flow path to prevent the back flow of one of a headspace gas and standard from the pressurized standard vessel.

16.   (Withdrawn) A vial autosampler for obtaining a sample from a selected one of a plurality of vials, the autosampler comprising:

a vial storage area adapted to store a plurality of vials;

a sampling station adapted to receive the selected vial and perform automated

analysis thereon; and

a vial transporter adapted to transport the selected vial from the vial storage

area to the sampling station;

wherein the sampling station includes means for automatically injecting at least

one standard into a first flow path.

17.   (Withdrawn) The vial autosampler of claim 16, including means for automatically extracting methanol.

18.   (Withdrawn) The vial autosampler of claim 16, including means for performing automatic dilution at a range from about 1:100 to approximately 1:1000.

19.   (Withdrawn) The vial autosampler of claim 16, including means for automatically performing water sample extraction.

20.   (Withdrawn) The vial autosampler of claim 16, including means for automatically injecting methanol.

21.   (Withdrawn) The vial autosampler of claim 16, including means for providing methanolic sample extraction and dilution.

22.   (Withdrawn) The vial autosampler of claim 16, including means for performing static head space gas extraction.

23.   (Withdrawn) The vial autosampler of claim 16, including means for performing head space gas extraction.

24.   (Currently Amended) A vial autosampler for performing both liquid and gas sample extractions from a specimen contained in a vial, the auto sampler comprising:

an exit port;

a needle adapted to inject and extract gas and liquids from the vial;

a first flow path in line with the needle; and

a first valve having an open position wherein the first flow path is in line with the exit port and a closed position wherein the first flow path is in line with a source of pressurized gas and cut off from the exit port;

whereby a headspace gas extraction of the vial is facilitated by the valve being in the open position, and a liquid extraction of the vial is facilitated by the valve being in the closed position.

25.   (Currently Amended) The autosampler of claim 24, wherein:

a the first valve is in line with the exit port; and

the autosampler further comprises a second valve in line with the source of pressurized gas.

26.   (Original) The autosampler of claim 24, wherein the headspace gas extraction is a dynamic headspace gas extraction.

27.   (Cancelled)

28.   (Previously Presented) The autosampler of claim 24, wherein the specimen comprises at least one of a soil sample and a water.

29.   (Previously Presented) The autosampler of claim 24, wherein the needle comprises:

       a bottom stage having at least one aperture and an end;

       a middle stage, proximate to the bottom stage, having at least one aperture; and

       a top stage, proximate to the bottom and middle stages, having at least one aperture, wherein the top stage of the needle is in line with the first flow path.

30.   (Previously Presented) The autosampler of claim 29, further comprising:

       a second flow path in line with the middle stage of the needle;

       a solvent reservoir;

       a multi-port valve in line with the second flow path;

       a pumping means in line with the source of pressurized gas and the multi-port valve and adapted for withdrawing a solvent from the solvent reservoir and adding the solvent to the vial through the second flow path;

       a third valve in line with the pumping means and the source of pressurized gas; and

       the multi-port valve having at least a first position wherein the pumping means is in line with the solvent reservoir and a second position wherein the pumping means is in line with the second flow path and cut off from the solvent reservoir;

       whereby withdrawal of the solvent from the solvent reservoir is facilitated by the multi-port valve being in the first position and the third valve being in

the closed position, addition of the solvent to the vial is facilitated by the

multi-port valve being in the second position and the third valve being in

the open position, and a static headspace gas extraction is facilitated by

the multi-port valve being in the second position and the third valve

being in the open position.

31.   (Previously Presented) The autosampler of claim 30, wherein the solvent

comprises at least one of water and methanol, and the specimen comprises a soil

sample.

32.   (Previously Presented) The autosampler of claim 30, further comprising:

a third flow path in line with the bottom stage of the needle; and

wherein the pumping means is further adapted for withdrawing a liquid sample

from the vial;

wherein the multi-port valve further comprises a third position, wherein the

third flow path is in line with the pumping means and the source of

pressurized gas;

whereby a dynamic headspace gas extraction is facilitated by the multi-port

valve being in the third position and the third valve being in the open

position, and withdrawal of the liquid sample from the vial is facilitated

by the multi-port valve being in the third position and the third valve

being in the closed position.

33.   (Previously Presented) The autosampler of claim 32, further comprising:

a second exit port in line with the second flow path;

a fourth valve in line with the second exit port; and

a fifth valve in line with the second flow path,

wherein the pumping means is further adapted for pumping the liquid sample
to the second exit port,

whereby pumping the liquid sample to the second exit port is facilitated by the
multi-port valve being in the second position, the third valve being in the
open position, the fourth valve being in the open position and the fifth
valve being in the closed position.

34.   (Previously Presented) The autosampler of claim 33, further comprising:

a second solvent reservoir in line with the multi-port valve,

wherein the multi-port valve further comprises a fourth position, wherein the
pumping means is in line with the second solvent reservoir;

whereby withdrawal of a second solvent from the second solvent reservoir is
facilitated by the multi-port valve being in the fourth position and the
third valve being in the closed position.

35.   (Previously Presented) The autosampler of claim 34, wherein the second solvent
comprises at least one of water and methanol.

36.   (Previously Presented) The autosampler of claim 33, further comprising:

an internal standard injection means adapted to introduce a known quantity of
at least one internal standard into at least one of the liquid sample and
the vial;

wherein the internal standard injection means is in line with the second flow
path.

37.   (Previously Presented) The autosampler of claim 29, further comprising:

a third flow path in line with the bottom stage of the needle;

a pumping means in line with the source of pressurized gas and the third flow

path and adapted for withdrawing a liquid sample from the vial; and

a third valve in line with the pumping means and the source of pressurized gas;

whereby a dynamic headspace gas extraction is facilitated by the third valve

being in the open position and withdrawal of the liquid sample from the

vial is facilitated by the third valve being in the closed position.

38.   (Previously Presented) The autosampler of claim 29, wherein the needle further

includes a heated block adapted to heat a portion of at least one of the bottom stage,

the middle stage, and the top stage of the needle.

39-44 (Cancelled)